

REMARKS

Claims 1-4 have been amended and claim 6-7 have been added. Claims 1-7 are pending in the present application. Applicants reserve the right to pursue the original claims and other claims in this application and in other applications.

Claims 1 and 4 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Office Action states that the claim 1 terms “such as” and “or the like” in line 2 render claim 1 unclear. Claim 1 has been amended. The concerns raised in the Office Action have been addressed by the amendment to claim 1. Accordingly, Applicants respectfully submit that the rejection should be withdrawn.

Claims 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ooshima. The rejection is respectfully traversed and reconsideration is respectfully requested.

Claim 1 recites an image recognition device comprising “a fluctuation producing portion which produces fluctuation information for changing recognition results in order to avoid mis-recognition caused by mistakenly recognizing an object that is not a detection object as being a detection object; and an image recognition portion which carries out an image recognition process on supplied image data by taking into account the fluctuation information produced by said fluctuation producing portion.” Applicants respectfully submit that Ooshima fails to disclose the claimed invention.

Ooshima, by contrast, discloses a picture processing method that adds different “offset values” to reference data during a picture processing method. Applicants respectfully submit that the Ooshima process utilizing the offset values is much different than the claimed “fluctuation information for changing recognition

results in order to avoid mis-recognition” and related processing. As such, Ooshima does not disclose, teach or suggest “a fluctuation producing portion which produces fluctuation information for changing recognition results in order to avoid mis-recognition caused by mistakenly recognizing an object that is not a detection object as being a detection object” as is recited in claim 1. Accordingly, Ooshima fails to disclose the claim 1 invention.

Claims 2-4 recite, among other things, “a fluctuation producing portion which produces fluctuation information for changing recognition results in order to avoid mis-recognition caused by mistakenly recognizing an object that is not a detection object as being a detection object.” Claim 5 recites “a fluctuation producing process which produces fluctuation information for changing recognition results.” Applicants respectfully submit that for at least the reasons set forth above, claims 2, 3, 4 and 5 are allowable over Ooshima. Newly added claims 6 and 7 are believed to be allowable at least for the reasons set forth above and on their own merits.

The distinctions between the claimed inventions and Ooshima are now explained in slightly more detail. The “fluctuation information” of the claimed inventions is “for changing recognition results.” The claimed inventions can change the details of the image data of a recognition object supplied to an image recognition device, or the details of dictionary data to be used at the time of image processing (e.g., claim 3), every time the recognition process is performed by producing fluctuation information during the actual process.

By using fluctuation information “for changing recognition results,” as opposed to the offset values of Ooshima, if the claimed inventions mis-evaluate ordinary image data (i.e., data allowed to be output) as being prohibited output data, and does not perform a normal output operation at that time, it is possible to correctly

recognize the data and perform a normal printing operation using the claimed inventions by repeating the recognition process.

Regarding prohibited outputs, even though a superimposed fluctuation somewhat changes the image data of an image recognition object, only a slight change in image quantity occurs (since what is superimposed relies on a value resulting from a "fluctuation"). As far as prohibited output items (e.g., banknotes) are concerned, the items to be read typically have been changed over time (e.g., creases, etc.). The image recognition device of the claimed inventions is provided with a recognition algorithm/dictionary capable of responding to these changes. Therefore, although a printing process is performed several times, the claimed inventions can recognize the prohibited output items without being affected by small changes of the "fluctuation" information.

Ooshima's recognition results, on the other hand, will never be different from its previous results as long as the input data remains unchanged. Although Ooshima refers to "offsets" and adds these offsets to reference data, the Ooshima process mainly relies upon fixed reference data orientations (e.g., -10, 0, +10).

Presuming, for example, that the Ooshima device and the claimed inventions mis-evaluate the same non-prohibited image data as being a prohibited output item; the claimed inventions' use of fluctuation information allows the inventions to conclude that the image data is in fact non-prohibited and a normal output operation is performed -- Ooshima, however, cannot.

The differences between the claimed inventions and Ooshima are further shown by the objects of the inventions. The claimed inventions recite and relate to avoiding mis-recognition "caused by mistakenly recognizing an object that is not a

detection object as being a detection object.” Ooshima, on the other hand, is solely concerned with recognizing a specified picture at a high recognition rate. Ooshima’s problem to be solved is described as a “trouble that a specific image will not be able to be distinguished more often correctly.” Ooshima at [0005]. Thus, Ooshima and the claimed invention do not share a common goal and are not solving the same problem.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

By 

Thomas J. D'Amico

Registration No.: 28,371

Gianni Minutoli

Registration No.: 41,198

DICKSTEIN SHAPIRO MORIN &

OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicants